FIG.1

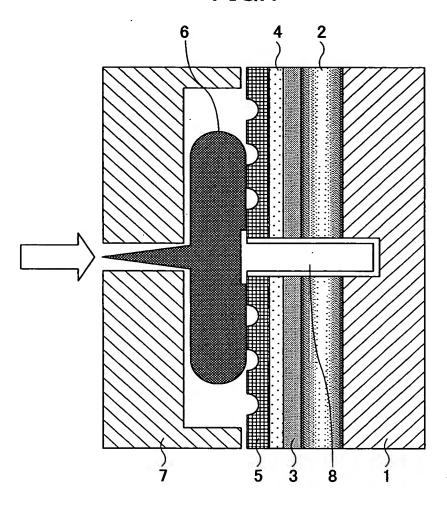
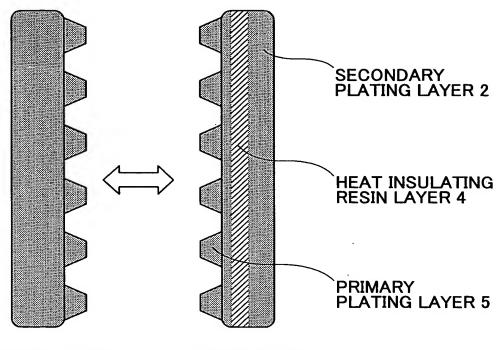
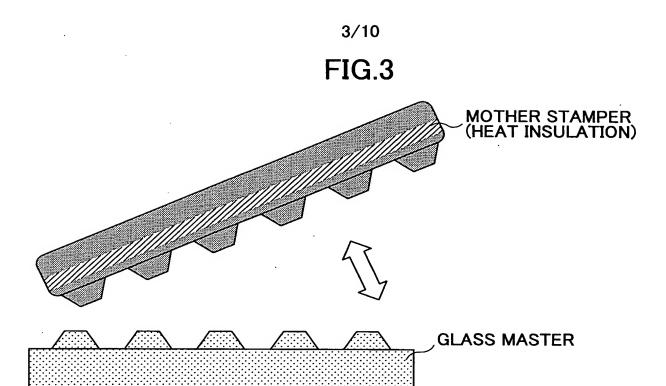


FIG.2



MOTHER STAMPER

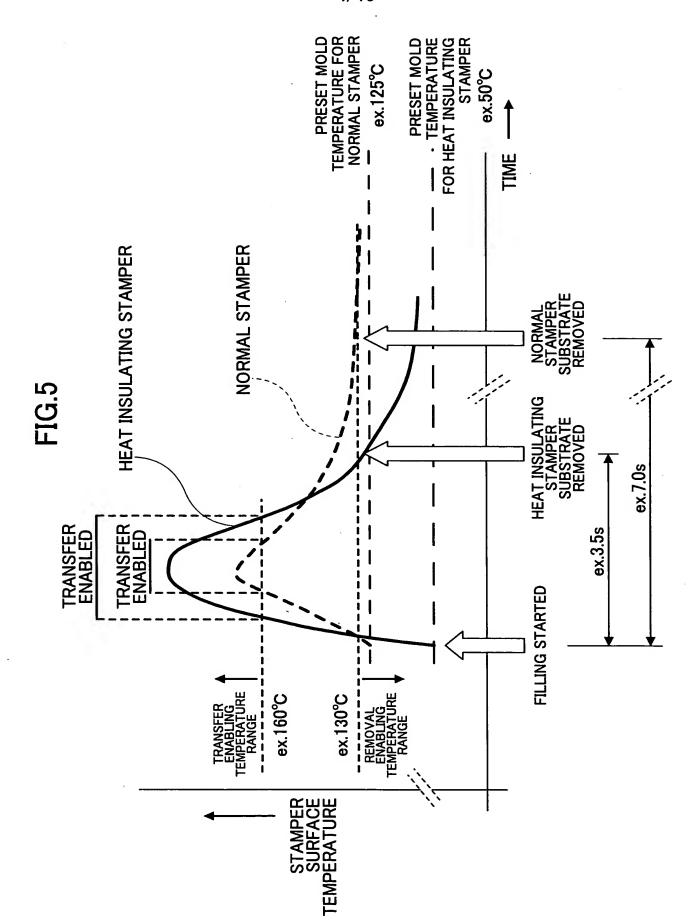
SON STAMPER



SON STAMPER (HEAT INSULATION)

MOTHER STAMPER

FIG.4



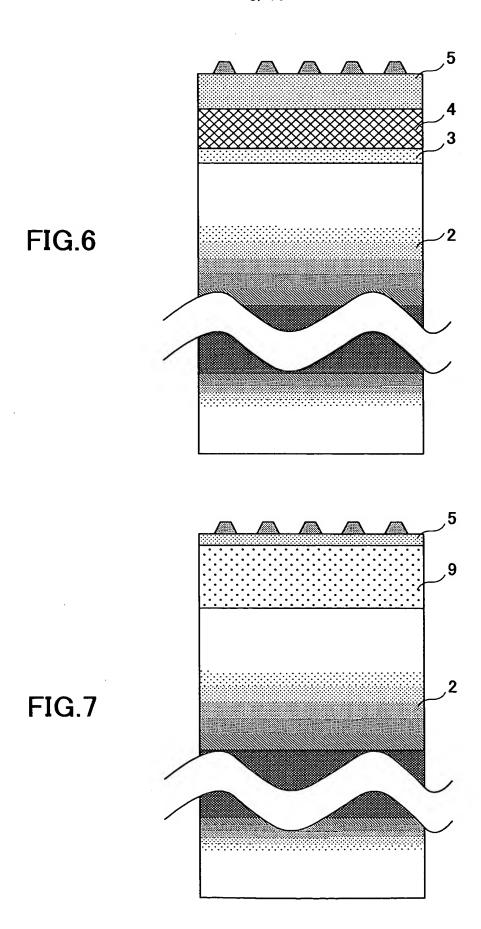


FIG.8

1. GLASS MASTER PRODUCTION: RESIST APPLICATION/EXPOSURE/PHOTO LITHOGRAPHY



2. CONDUCTION PROCESSING <1>
(Ni SPUTTERING, ELECTROLESS Ni)



3. MASTER STAMPER PRODUCTION/ SEPARATION FILM TREATMENT <1>



4. MOTHER STAMPER PRODUCTION/ SEPARATION FILM TREATMENT <2>



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5. SON STAMPER PRODUCTION: PRIMARY PLATING/ POLYMER LAYER FORMATION/CONDUCTION TREATMENT <2>/ SECONDARY PLATING FORMATION



6. SON STAMPER FINISHING: BACKSIDE GRINDING/INNER AND OUTER SHAPE PROCESSING/INSPECTION

FIG.9

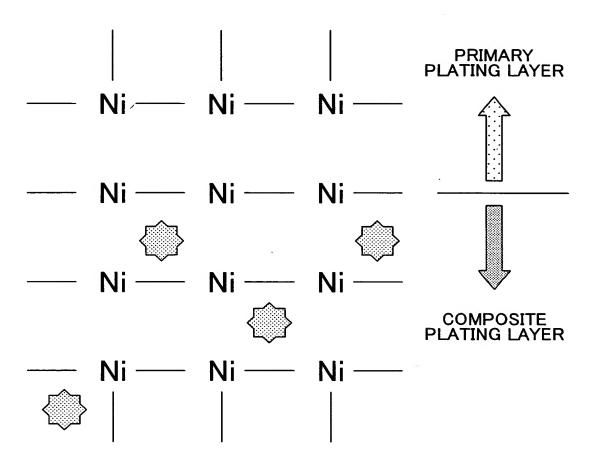


FIG.10A
FRONT SIDE

FIG.10B

BACK SIDE

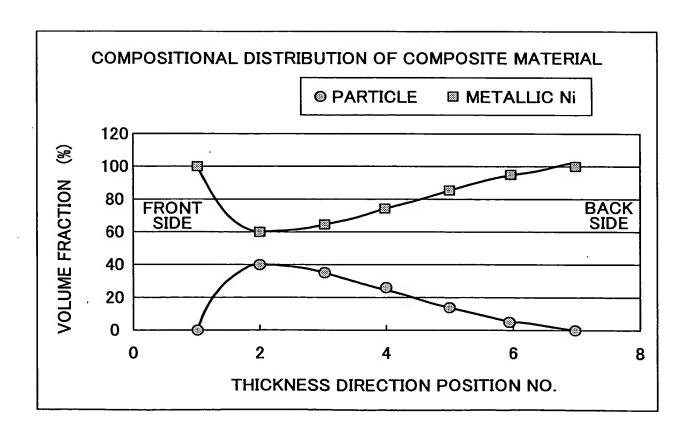
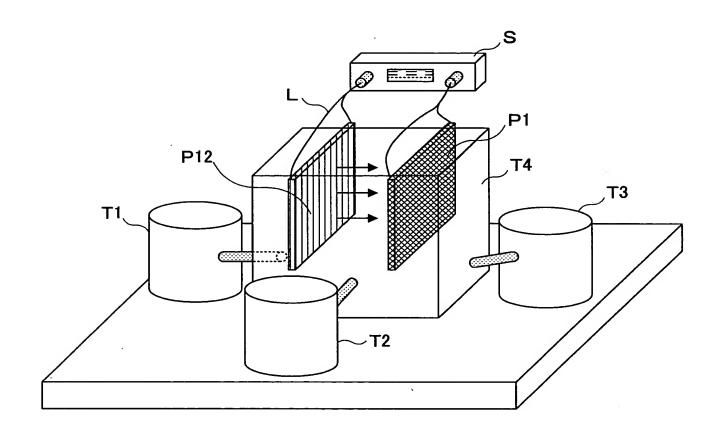


FIG.11





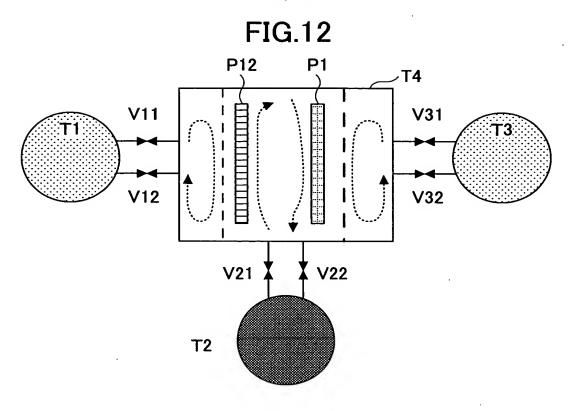


FIG.13
TEMPERATURE CHANGE
Ni vs Ni + F

